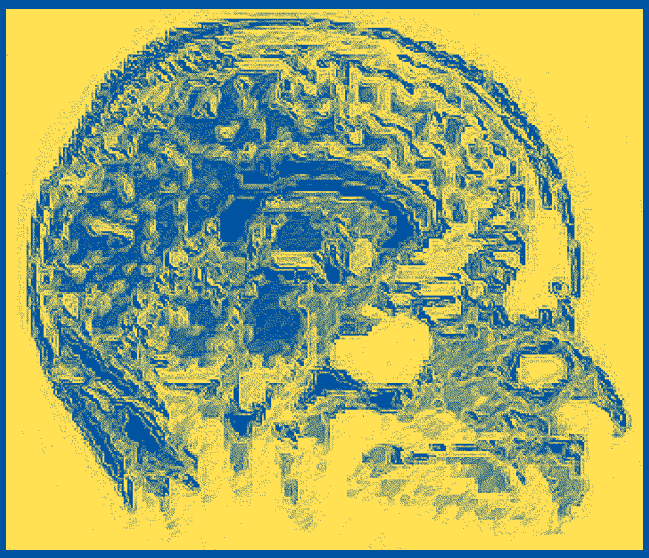
Preparing for and Responding to Bioterrorism

Information for Primary Care Clinicians



Psychological Aftermath of Crisis

Developed by

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Last Revised July 2002

Acknowledgements

This manual and the accompanying MS PowerPoint® slides were prepared for the purpose of educating primary care clinicians in relevant aspects of bioterrorism preparedness and response. Instructors are encouraged to freely use all or portions of the material for its intended purpose. The following people and organizations provided information and support in the development of this curriculum.

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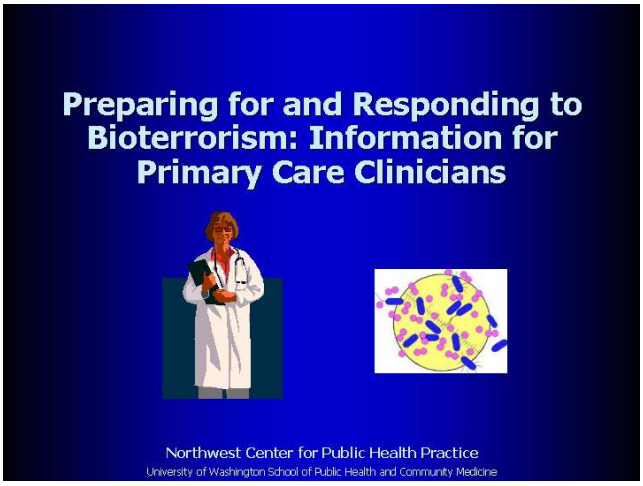
About This Course



"Preparing for and Responding to Bioterrorism: Information for Primary Care Clinicians" is intended to provide primary care clinicians with a basic understanding of bioterrorism preparedness and response, how the clinician fits into the overall process, and the clinical presentation and management of diseases produced by agents most likely to be used in a biological attack. The course was designed by the Northwest Center for Public Health Practice in Seattle, Washington, and Public Health – Seattle & King County.

The course incorporates information from a variety of sources, including the Centers for Disease Control, the United States Army Medical Research Institute in Infectious Disease (USAMRIID), the Working Group on Civilian Biodefense, Public Health - Seattle & King County, and the Washington State Department of Health, among others (a complete list of references is given at the end of the manual). The course is not copyrighted and may be used freely for the education of primary care clinicians.

Course materials will be updated on an as-needed basis with new information (e.g., research study results, consensus statements) as it becomes available. For the most current version of the curriculum, please refer to: http://nwcphp.org/bttrain/.

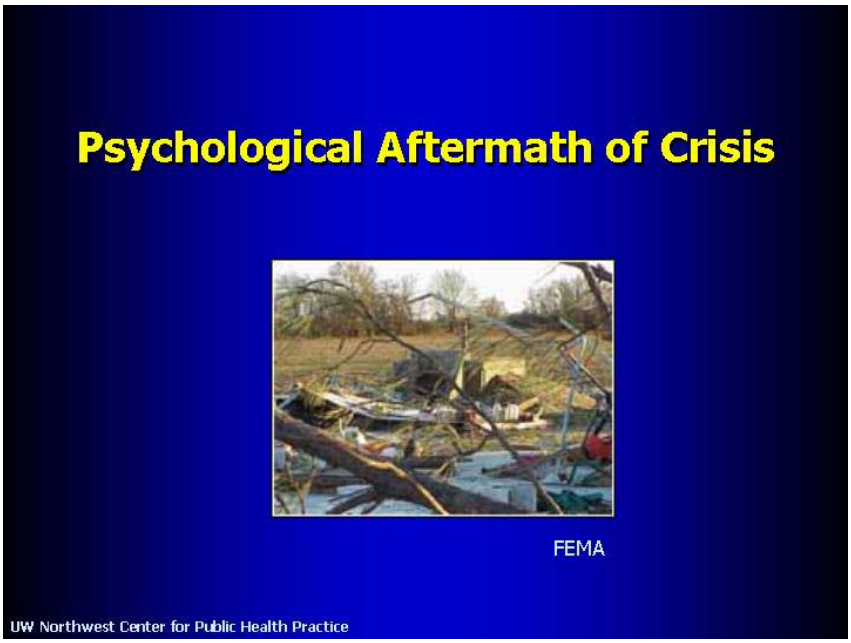
How to Use This Manual

This manual provides the instructor with additional useful information related to the accompanying MS PowerPoint® slides. The manual and slides are divided into four major sections: Introduction to Bioterrorism, Bioterrorism Preparedness and Response, Diseases of Bioterrorist Potential, and Psychological Aftermath of Crisis. Learning objectives precede each section, and a list of resources is given at the end of each section. Four slide sets comprise the section on the diseases of bioterrorist potential: Anthrax, Smallpox, Plague and Botulism, and Tularemia and Viral Hemorrhagic Fevers. Each disease slide set contains the same introductory material on the critical agents at the beginning, and the same list of resources at the end. Instructors who want to skip this introductory material can use the navigation pages provided in the Plague and Botulism and Tularemia and Viral Hemorrhagic Fever modules (click the section you want to go to), or the custom show option in the Anthrax and Smallpox modules (go to "Custom Shows" under the "Slide Show" option on the MS PowerPoint® toolbar; select "Anthrax/Smallpox, skip intro").

Links to Web sites of interest are included in the lower right-hand corner of some slides and can be accessed by clicking the link while in the "Slide Show" view. Blocks of material in the manual are summarized in the "Key Point" sections to assist the instructor in deciding what material to include in a particular presentation. A Summary of Key Points is indicated in bold, at the beginning of each section.

The slide set can be presented in its entirety, in subsections, or as an overview, depending on the level of detail included. The entire course was intended to be presented in a six- to seven-hour block of time, divided into one- to three-hour blocks according to instructor/audience preference. For instructors who want to present a less detailed, "overview" course, suggestions for more abbreviated presentations are incorporated into the modules. These latter options are built into the slide set, and can be accessed by going to "Custom Shows" (under the "Slide Show" option on the MS PowerPoint® task bar).

Psychological Aftermath of Crisis



Summary of Key Points:

(Listed in slides 29-31)

1. The psychological response and long-term effects following a traumatic event are influenced by an individual's unique combination of health, developmental level, resources, and experiences.
2. Anxiety responses are most likely following a BT attack, but depressive symptoms, PTSD/ASD, and substance use may also occur.
3. Most individuals will function adequately, but a few will need psychological or medical intervention.

Learning Objectives (Slide 4)

The learning objectives for this session are:

1. Know the potential psychological manifestations of a bioterrorist attack/threat on members of the community
2. Know what factors influence risk perception
3. Identify at-risk groups for psychiatric sequelae following trauma

Many of the potential manifestations of a bioterrorist attack or threat are similar to those following a natural disaster or other form of trauma. This session, therefore, discusses general concepts of disaster psychiatry and response to trauma, as well as issues specific to bioterrorism events.

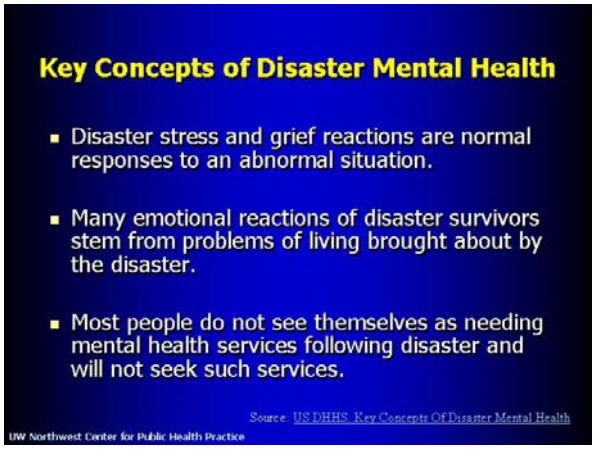
Section 1: Key Concepts of Disaster Mental Health

(Slides 5-6)

Key Point

1. Psychological effects following a disaster extend beyond just the injured individuals and, to a certain degree, are normal and expected.

There are two aspects to disaster trauma – the effects on the individual and the effects on the community as a whole. Individual effects of disaster trauma include the physical and psychological consequences of those injured (or infected, in the case of a BT attack), as well as psychological consequences of the injured person's loved ones. Individuals with no direct connection to the trauma other than awareness can experience psychological symptoms as well, especially in the case of terrorism, where events often occur without warning and thus leave people anticipating future events. Disasters can affect the physical resources – human and material – of a community, as well as the behavior and cohesive nature of the community.



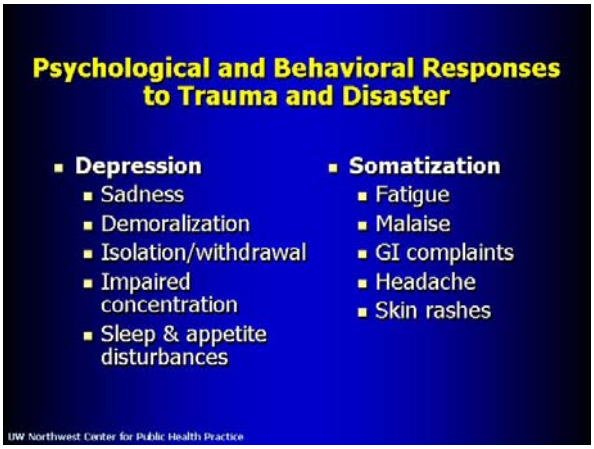
Disasters stress the physical and emotional resources of people, but most people function adequately and may need only temporary assistance with problems of living brought about by the disaster (i.e., financial assistance, temporary accommodations, etc.). Psychological reactions to a disaster or trauma are normal, and it is important for a clinician not to label a patient with a diagnosis prematurely. At the same time, most people will not seek mental health services following a disaster; therefore primary care clinicians should be alert to signs of abnormal stress responses and psychopathology in their patients.

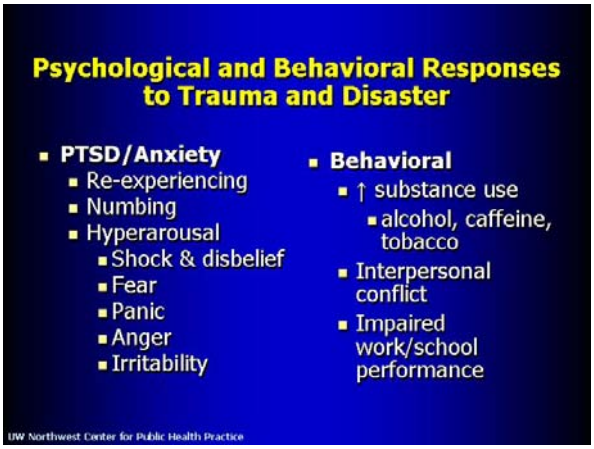
Section 2: Psychological Responses to Disaster and Trauma (Slides 7-13)

Key Points, Slides 7-14

1. Normal responses to trauma and disaster include depression, PTSD/anxiety symptoms, and behavioral changes.
2. Anxiety and uncertainty predominate following a biological attack.
3. The response of children to trauma and disaster reflects their developmental level.

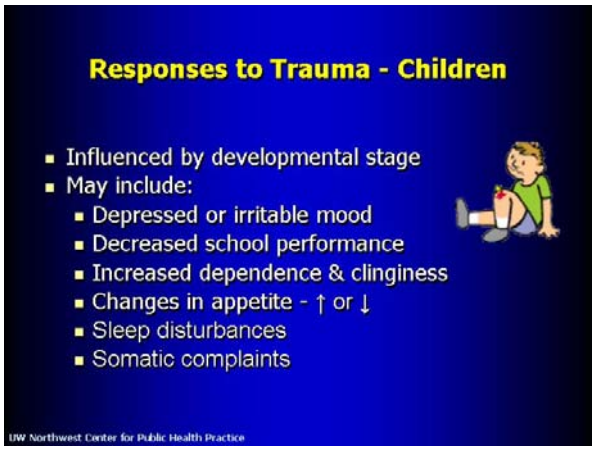
Some of the possible psychological and behavioral responses to disaster and trauma are listed in slides 7-13. Note that depressive symptoms, somatization, and PTSD/anxiety symptoms are **normal** reactions following trauma and disaster and do not necessarily imply pathology (unless DSM IV criteria are met or symptoms cause significant impairment in normal functioning).





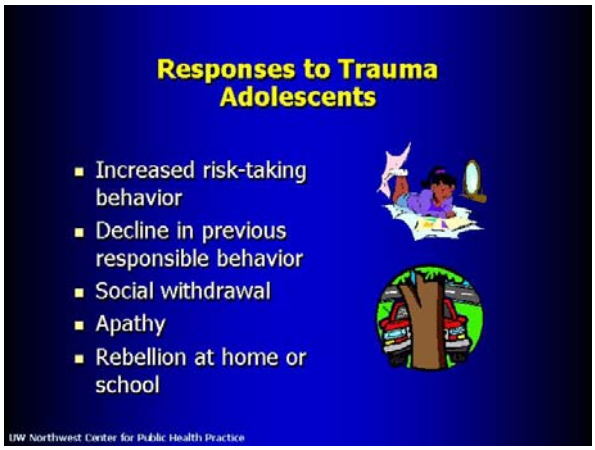
Children & Adolescents

Children (slides 9-13) are a particularly vulnerable population following a traumatic event. They have fewer skills and less experience in life than adults. They have had fewer opportunities and time to develop coping mechanisms and rely on their parents/care givers to keep them safe.

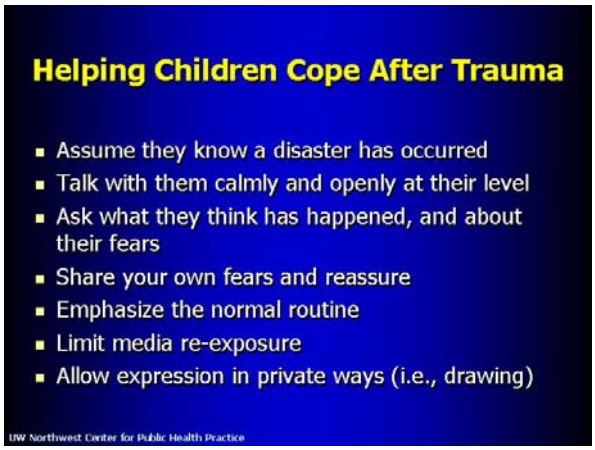


Many of the signs of distress in children are similar to those seen in adults. Distress may manifest itself differently in children, however, depending on their developmental level.

Developmentally specific responses to trauma are outlined in the following slides for school-age children (slide 11) and adolescents (slide 12).



Slide 13 gives advice for parents to help children cope after trauma. It is important for both adults and children to be able to talk openly, with someone they trust, about their feelings and concerns, following a traumatic event.



Psychological Responses Following a Biological Terrorist Attack

(Slides 14-15)

Many of the psychological responses following a bioterrorist attack will be similar to those following other disasters and traumas. Individuals and communities will grieve over the loss of loved ones to disease caused by the agents and may feel a loss of safety in their community. Fear and anxiety are likely to be the predominant emotions, however. The challenge for clinicians will be to determine the patient's risk and likelihood of exposure and to differentiate symptoms due to infection from symptoms due to anxiety.

Slide 15 is included to help explain why anxiety and fear may be so great following a biological attack (or even just a threat of attack). Many factors influence how people perceive, and are willing to tolerate risk.

People are willing to tolerate a much greater risk if it is taken on voluntarily and under their control than if it is imposed upon them and out of their control.

Risks are also better tolerated when distributed fairly, are from a trusted source, and will ultimately result in some benefit to the individual.

Natural and familiar risks are perceived as better than those that are man-made or exotic.

A bioterrorist attack is imposed, controlled by others, unfairly distributed, of no benefit to the victims, and from an untrusted source. Biological agents are natural, but their deliberate release into the environment is a man-made event; and most of the agents with BT potential would be considered "exotic" by individuals in the community.

Section 3: Factors Influencing Response to and Risk of Psychiatric Sequelae Following a Traumatic Event

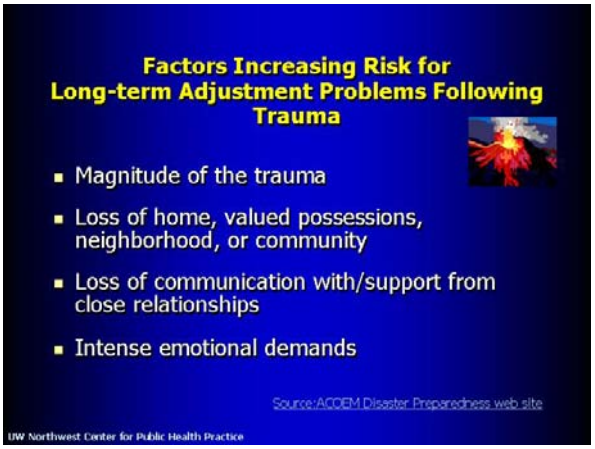
(Slides 16-20)

Key Point

1. Internal and external factors, pre and post-event, may make some individuals more at risk for long-term adjustment problems and psychiatric sequelae following a traumatic event.

Factors influencing an individual's response to a traumatic event are listed in slide 16 and include innate, predisposing factors, factors pertaining to the event/exposure, and factors pertaining to the time following the event. Coping with stress requires appraisal of both the stressor and the individual's available resources/coping mechanisms, and development of a coping strategy.

The magnitude and severity of the stressor, the strength and availability of resources, and the ability to develop a coping strategy are each important in determining the individual's risk for negative sequelae. These basic concepts are reflected in the list of factors increasing one's risk for long-term adjustment problems and psychiatric problems (slides 17-20).




Factors Increasing Risk for Long-term Adjustment Problems Following Trauma
Extreme fatigue, weather exposure, hunger, or sleep deprivation
Extended exposure to danger, loss, emotional/physical strain
Exposure to toxic contamination
Source: ACOEM Disaster Preparedness web site
UW Northwest Center for Public Health Practice


At-risk Populations for Psychiatric Sequelae Following Traumatic Stress
Those exposed to the dead and injured
Eye witnesses and those endangered by event
Emergency first-responders
Medical personnel caring for victims
The elderly
The very young
Source: Norwood et al. Disaster psychiatry: principles and practice.
UW Northwest Center for Public Health Practice


At-risk Populations for Psychiatric Sequelae Following Traumatic Stress
Those with a history of exposure to other traumas or with recent or subsequent major life stressors or emotional strain
Chronic poverty, homelessness, unemployment, or discrimination
Those with chronic medical or psychological disorders
Source: ACOEM Disaster Preparedness web site
UW Northwest Center for Public Health Practice

Section 4: Role of the Primary Care Provider

Key Point

1. The roles of the primary care provider following disaster or trauma include differentiating abnormal from normal stress responses, providing treatment when indicated, and providing information and support to patients.

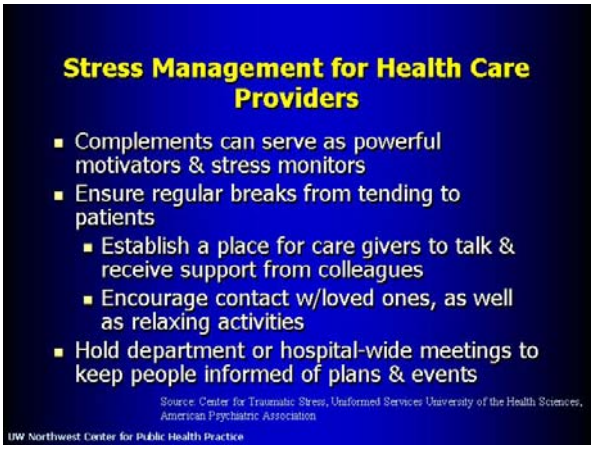
The role of the primary care provider in the psychological aftermath of trauma is outlined in slides 21 and 22.

The first responsibility of the clinician is to determine when medical treatment is indicated. Cognitive and physical symptoms may each be of either psychological or biological origin. Psychological symptoms may require short-term treatment with medications if the symptoms interfere with the individual's ability to function. Individuals meeting DSM-IV criteria, or who are otherwise exhibiting abnormal responses to stress, will need appropriate treatment, either through the primary care clinician or via referral to a mental health care provider.

Risk communication is another important role for the primary care provider. Anxiety may be due to perceived risks that are not true risks, and education may serve to relieve unnecessary fears.

Active listening is another important role for the clinician. Talking through one's emotions is an important part of the recovery process.

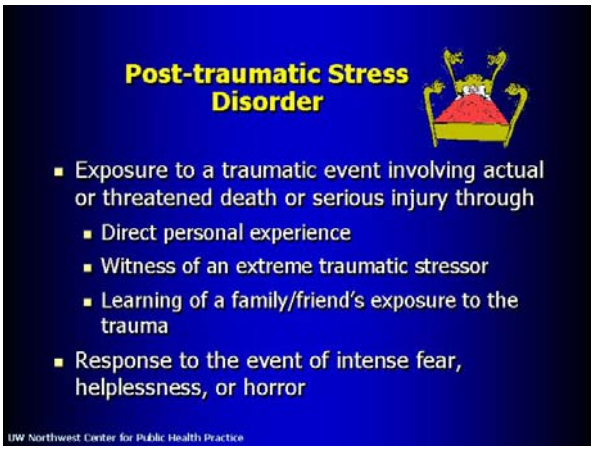
Stress Management for Health Care Providers (Slide 23)



Clinicians also need to be aware of their own and their employees' stress responses, especially if they are providing direct care to victims.

Section 5: Abnormal Stress Responses (Slides 24-28)

Slide 24 lists possible abnormal stress responses that may occur following a disaster or trauma, and require medical or psychological intervention.



Slides 25-28 review the DSM-IV criteria for Post-traumatic Stress Disorder, and Acute Stress Disorder. The latter is the more likely diagnosis; PTSD is an important diagnosis but a less common one than ASD.

Post-traumatic Stress Disorder

- Exposure results in persistent
  - **re-experiencing** of the traumatic event
  - **avoidance** of stimuli associated with the trauma and numbing of general responsiveness
  - symptoms of **increased arousal**

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Post-traumatic Stress Disorder

- Symptom picture must be present for >1 month
- Disturbance must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning

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Acute Stress Disorder

- Similar to PTSD, but persists for 2 days - 4 weeks, and occurs w/in 4 weeks of trauma
- Disassociative symptoms must be present

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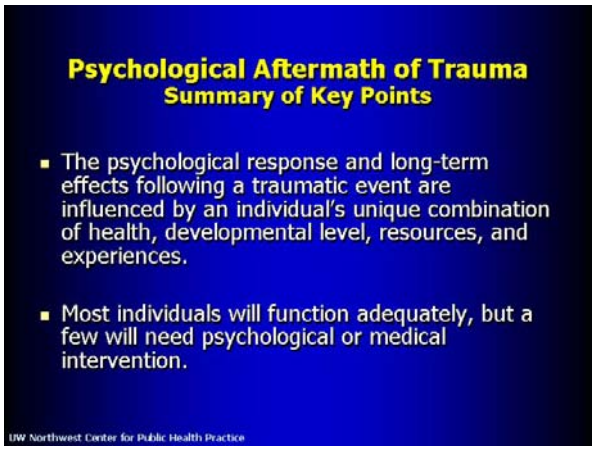
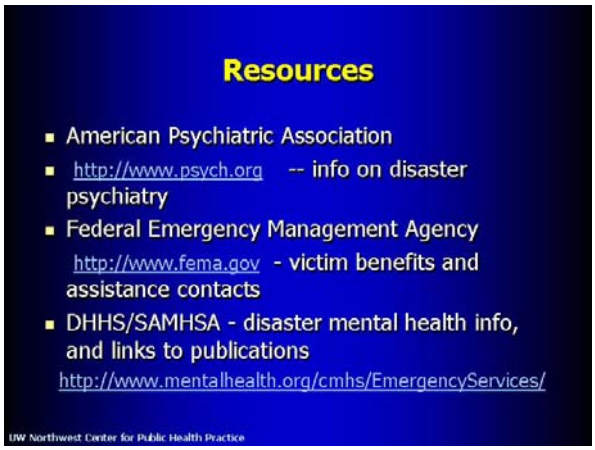
Summary of Key Points

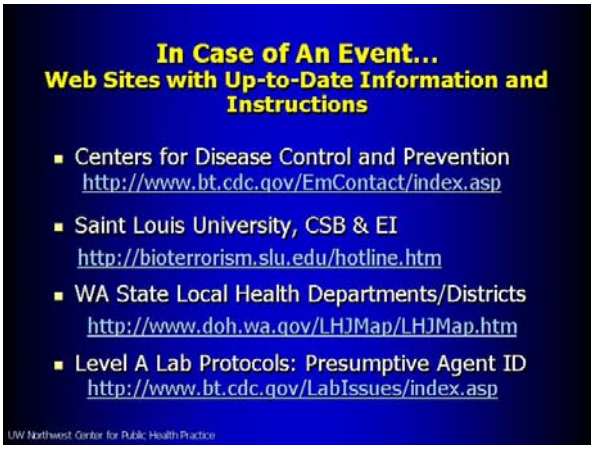


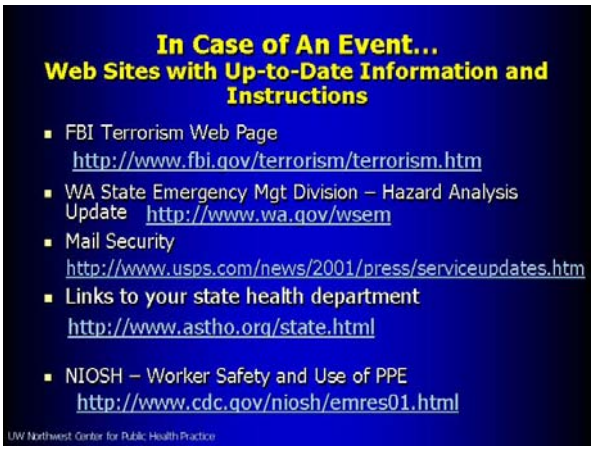
Resources



In Case of An Event…

The next two slides highlight Web-based resources valuable to clinicians during a BT event. Most of the links have been presented previously in the resources following the different sections of this curriculum. They are included here again because they contain answers to questions clinicians may have during the course of an event – updates on disease investigations and threats, current testing, treatment and prophylaxis recommendations, and contact numbers for additional information and reporting.





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Preparing for and Responding to Bioterrorism Instructor's Manual Series

In the wake of the 2001 anthrax attacks, thousands of people and organizations across the country have scrambled for information on how to protect themselves, their families, and their employees from anthrax and other potential agents of bioterrorism. Health officials have been flooded with requests to deliver presentations on bioterrorism preparedness and response at community forums, clinical conferences, business meetings, and other public venues. Potential instructors and trainers, however, have been handicapped by the lack of up-to-date, basic orientation resources on bioterrorism preparedness and response.

Preparing for and Responding to Bioterrorism: Information for Primary Care Clinicians is a series of train-the-trainer resources that addresses the medical and public health aspects of bioterrorism. It is scientifically accurate, up-to-date (as of the date of publication), and immediately relevant to primary care clinicians. The series consists of seven PowerPoint™ slide sets, each accompanied by a detailed instructor's manual. The slide sets cover plague, anthrax, smallpox, botulism, tularemia, viral hemorrhagic fevers, and the psychological aftermath of bioterrorism. They are flexible and can be customized for local community needs. Included in each slide set and instructor's manual is a list of resources, references, and contacts for further information on bioterrorism preparedness and response—before, during, and after an incident.

We hope these resources will not only prepare clinicians to recognize and treat diseases of bioterrorist potential but also help facilitate coordination between the public health and medical communities in the event of a bioterrorist attack.

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